

Amendments to the Specification:

Please replace the following amended paragraph (corresponding to the paragraph beginning on page 3, line 27, and continuing through page 4, line 9 of the originally filed application) with the following replacement paragraph (amendment filed on May 12, 2006 is reflected below):

Figures 1A-[4E] 1F show an alignment of AXMI-006 (SEQ ID NO:2) with cry1Aa (SEQ ID NO:3), cry1Ac (SEQ ID NO:4), cry1Ia (SEQ ID NO:5), cry3Aa1 (SEQ ID NO:6), cry3Ba (SEQ ID NO:7), cry 4Aa (SEQ ID NO:8), cry6Aa (SEQ ID NO:9), cry7Aa (SEQ ID NO:10), cry8Aa (SEQ ID NO:11), cry10Aa (SEQ ID NO:12), cry16Aa (SEQ ID NO:13), cry19Ba (SEQ ID NO:14), and cry24Aa (SEQ ID NO:15). Toxins having C-terminal non-toxic domains were artificially truncated as shown. Conserved group 1 is found from about amino acid residue 218 to about 239 of SEQ ID NO:2. Conserved group 2 is found from about amino acid residue 300 to about 350 of SEQ ID NO:2. Conserved group 3 is found from about amino acid residue 547 to about 592 of SEQ ID NO:2. Conserved group 4 is found from about amino acid residue 611 to about 621 of SEQ ID NO:2. Conserved group 5 is found from about amino acid residue 694 to about 704 of SEQ ID NO:2.

Please replace the amended paragraph (corresponding to the paragraph beginning on page 12, line 26, and continuing through page 13, line 5 of the originally filed application), with the following replacement paragraph (amendment filed on May 12, 2006 is reflected below):

Amino acid substitutions may be made in nonconserved regions that retain function. In general, such substitutions would not be made for conserved amino acid residues, or for amino acid residues residing within a conserved motif, where such residues are essential for protein activity. Examples of residues that are conserved and that may be essential for protein activity include, for example, residues that are identical between all proteins contained in the alignment of Figures 1A-[4E] 1F. Examples of residues that are conserved but that may allow conservative amino acid substitutions and still retain activity include, for example, residues that have only conservative substitutions between all proteins contained in the alignment of Figures 1A-[4E]

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1E. However, one of skill in the art would understand that functional variants may have minor conserved or nonconserved alterations in the conserved residues.